

135-5-4/14

TITLE: Effect of Oxygen Content in Copper on the Properties of Welded and Brazed Joints. (Issledovaniye vliyaniya sodержaniya kisloroda v medi na svoystva svarnykh i payanykh soyedineniy).
in the article.

It was found that copper with oxygen content of not over 0.01%, in welded as well as in brazed joints, had the same strength and formability as the base metal, and that welding by metal electrodes is to be recommended in this case. When the oxygen content in copper exceeds 0.01%, welding by carbon electrode, with rods "Др0Ф 9-0.3", is to be recommended.

The article contains 4 tables, 4 diagrams, 1 photograph, and 4 references (all Russian).

ASSOCIATION: Central Scientific Research Institute of the Ministry of Transportation (Tsentral'nyy nauchnyy issledovatel'skiy institut ministerstvo putey soobshcheniya - TsNii MPS)

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress.
Card 2/2

KAPRALOVA, L.T.

On the digestive enzymes of the placenta and the digestive
organs of sheep fetuses. Dokl. AN SSSR 148 no. 4: 985-988 F '63.
(MIRA 16:4)

1. Institut morfologii zhivotnykh im. A.N. Severtsova AN SSSR.
Predstavleno akademikom K.I. Skryabinym.
(Fetus) (Sheep—Physiology) (Digestive enzymes)

KAPRALOVA, N.F., kand. tekhn. nauk

Relationship between the friction coefficient and rheological
properties of friction-pair materials. Izv. vys. ucheb. zav.;
mashinostr. no.9:114-119 '63. (MIRA 17:3)

1. Moskovskiy tekstil'nyy institut.

KAPRALOVA, N.F., kand.tekhn.nauk

Generalization of Euler's formula for the case of Coulomb's
friction. Izv.vys.ucheb.zav.; mashinostr. no.8:10-19 '63.
(MIRA 16:11)

1. Moskovskiy tekstil'nyy institut.

KAPRALOVA, N.F., kand. tekhn. nauk, dotsent

Characteristics of the experiments with nonlubricated external
friction. Izv. vys. ucheb. zav.; mashinostr. no.2:23-32 '65.
(MIRA 18:5)

KAPRALOVA, N.F.

Coefficient of sliding resistance. Izv.vys.ucheb.zav.; mashinostr.
no.4:20-29 '64. (MIRA 18:1)

1. Moskovskiy tekstil'nyy institut.

KAPRO-LIANA, N.F., kand. tekhn. nauk

Dependence of dynamic viscosity on speed gradient. Izv. vys.
ucheb. zav ; mashinostr. no.11:23-32 '63.

(MIRA 17:10)

1. Moskovskiy tekstil'nyy institut.

KAPRALOVA, N. F.

KAPRALOVA, N. F. --"Investigation of the Wear in Straight-Tooth Draw Bar Transmissions." * (Dissertations for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions) Min of Higher Education USSR, Moscow Order of Labor Red Banner Higher Technical School imeni Bauman, Moscow, 1955

SO: Knizhnaya Letopis', No. 25, 18 Jun 55

* For Degree of Candidate in Technical Sciences

KAPRALOVA, N.F., kand.tekhn.nauk

Wear of traction transmissions. Izv.vys.ucheb.zav.; mashinostr.
no.7:18-23 '60. (MIRA 13:11)

1. Moskovskiy avtomekhanicheskiy institut.
(Gearing) (Mechanical wear)

S/145/60/000/012,005/008
D221/D301

AUTHOR: Kapralova, N. F., Candidate of Technical Sciences

TITLE: The contact temperature of sliding cylinders

PERIODICAL: Izvestiya vysshikh uchebnykh zavendeniy. Mashinostro-
yeniye, no. 12, 1960, 127-135

TEXT: Investigations by the Laboratory of Friction and Friction Materials of the IMASH Akademii nauk SSSR (IMASH AS USSR) show that the temperature gradient is at least of the same importance as the surface temperature for estimating wear resistance. The author deals with determination of the contact temperature which would closely approach the actual value, and takes into account: a) Fi-
nite dimensions of the bodies, b) volume and surface temperature fields, c) heat exchange with external medium. The author considers a rotating homogeneous cylinder and the temperature produced by a frictional heat source in the form of a strip situated along the generatrix. If the cylinder rotates quickly one can assume that the heat flow is independent of the polar angle. The equation of heat

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The contact temperature ...

S/145/60/000/012/005/008
D221/D301

conduction is integrated by Fourier's method, first for a stationary regime and then for a non-stationary regime. Numerical examples are given. The method can be used for calculating temperature of brakes, gears and other frictional joints. The accuracy of the method increases the higher operational speeds. There are 3 figures and 6 references: 3 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: Bowden, The Physics of rubbing surfaces, 1944; H. Bloch, The Institution of Mech. Eng. Book 2, 1937.

ASSOCIATION: Moskovskiy avtomekhanicheskiy institut (Moscow Auto-mechanical Institute)

SUBMITTED: May 23, 1958

Card 2/2

KAPRALOVA, N.F., kand.tekhn.nauk

Modeling the wear process during nonlubricated friction.
Izv.vys.ucheb.zav.; mashinostr. no.4:128-132 '62. (MIRA 15:7)

1. Moskovskiy avtomekhanicheskiy institut.
(Friction) (Mechanical wear)

KAPRALOVA, Rimma Petrovna; MAROV, M.A., red.; STRONGIN, V.L., red.;
PYATAKOVA, N.D., tekhn. red.

[Billing machines; manual for operators for studying the operation of the machine] Fakturnye mashiny; posobie dlia operatorov po samostoiatel'nomu izucheniiu tekhniki raboty na mashine. Moskva, Gosstatizdat TsSU SSSR, 1961. 100 p.
(MIRA 15:3)

(Accounting machines)

BONDAREVA, Nadezhda Vasil'yevna; KRASIL'NIKOV, A.P., kand. med. nauk,
dots., nauchnyy red.; KAPRANOVA, N.V., red.; PSHONIK, B.M.,
red.; ZIMA, Ye.G., ~~tekhn.~~ red.

[Diseases transmitted to man by animals; an aid for students at
popular universities of health] Bolezni, peredalushchiesia chelo-
veku ot zhiivotnykh; v pomoshch' slushateliu narodnykh universite-
tov zdorov'ia. Minsk, 1961. 22 p. (Obshchestvo po rasprostrane-
niyu politicheskikh i nauchnykh znaniy Belorusskoi SSR, no.25).
(MIRA 15:2)

(ANIMALS AS CARRIERS OF DISEASE)
(COMMUNICABLE DISEASES)

ANIKLOVA, T. .

"AN Investigation of the Characteristics of the Phase Development of Red Clover."
Cand Biol Sci, Leningrad Order of Lenin State U imeni A. A. Zhdanov, Leningrad, 1955.
(KL, No 18, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended
at USSR Higher Educational Institutions (16).

17(4), 30(1)

AUTHOR: Kapralova, T. I.

SOV/20-127-5-57/58

TITLE: A Comparative Investigation of Several Peculiarities in the Stage Development of Red Clover

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 1140-1143 (USSR)

ABSTRACT: The main object of the present paper was the clarification of the reaction differences of individual clover plants (*Trifolium*) of different geographical origin to the influence of low temperatures and different light conditions. 22 specimens of *Trifolium pratense* L. 1. 1-harvest clover species served this purpose: Khibinskiy 1, Priozerskiy, Boksitogorskiy, Os'minskiy, Slvoritskiy 416, Konishchevskiy, Kazachinskiy; 2-harvest species: Lozovka, Zaozerskiy, Primorskiy 28, Chuyskiy, Nosovskiy, Podol'skiy, Belotserkovskiy 3306, Ital'yanskiy; wild growing specimens: Pechorskiy, Pavlovskiy, Shushenskiy, Kirgizskiy, Kurskiy, Kavkazskiy, Gorno-Altayskiy. Furthermore other clover species: Persidskiy (Persian) (*Tr. resupinatum* L.), and Aleksandriyskiy (*Tr. alexandrinum* L.) were investigated.

Card 1/3

A Comparative Investigation of Several Peculiarities
in the Stage Development of Red Clover

SOV/20-127-5-57/58

The experiments were carried out in the laboratoriya fiziologii rasteniy (Laboratory of Plant Physiology) of the Vsesoyuznyy institut rasteniyevodstva (All-Union Institute of Plant Growing), City of Pushkino, Oblast' Leningrad. The reaction of red (meadow) clover and of 1-year species to the effect of low temperatures. Table 1 shows several data on the dynamics of flowering. They show that the vernalization increases the percentage of flowering plants to a different extent for clover specimens of various origin (compare with control). The vernalized plants of all species began sooner to flower than the control plants. The vernalization also reduced the interval between the beginning of flowering and the flowering of all plants. The number of mature clusters per plant increases in all samples under the influence of low temperatures predominating between 24.4 and 1.6, i.e. between -1.5 and $+15^{\circ}$. The 1-harvest- and northern wild-growing samples were most influenced in this respect. The author assumes that the growth, the development, a shorter time of flowering, and a different course of development of the green mass and the generative organs of the vernalized clover plants are caused by the effect of the

Card 2/3

A Comparative Investigation of Several Peculiarities in the Stage Development of Red Clover SOV/20-127-5-57/58

low temperatures on the young plants. The reaction of the red (meadow) clover and of the 1-year clover species to varying lengths of the day. The seeds of the samples divided into 5 groups according to their geographical origin and place of the growth were first vernalized and sown in flowerpots on May 25th. Three days after germination the plants were divided into 4 groups: (1) continuous illumination, (2) natural illumination, 14^h-day, (4) 12^h-day. The last variant shows the earliest occurrence of the lateral shoots. The obtained results show completely reliably that the clover plants are able to form a rosette of autumnal lateral shoots or to adapt their development in this stage to such a duration of day light corresponding to that of the day in the autumn at the place of development of the species concerned. There are 2 tables and 8 Soviet references.

ASSOCIATION: Orenburgskiy sel'skokhozyaystvennyy institut
(Orenburg Agricultural Institute)

PRESENTED: December 7, 1958, by A. L. Kursanov, Academician

SUBMITTED: June 25, 1958

Card 3/3

KAPRALOVA, YE. V.

✓ Distribution of *Micrococcus pyogenes* var. *aureus* labeled with phosphorus-32 in acute experimental sepsis in rabbits. P. Ya. Sever, D. K. Grechishkin, L. N. Zamanskii, A. I. Loprehanikii, and Ye. V. Kapralova (Med. Inst., Cherskovskiy, Voprosy Med. Khim. 2, No. 1, 25-31 (1958)). — *M. pyogenes* var. *aureus* grown on culture medium contg. $\text{NaH}_2\text{P}^{32}\text{O}_4$ was washed and injected into the marginal vein of rabbits' ears at 10^8 organisms/kg. of body wt. This caused the death within 2-5 hrs. of all rabbits, which were immediately autopsied and the concn. of radioactivity in various organs detd. Control rabbits were injected with a mixt. of *M. pyogenes* var. *aureus* with $\text{NaH}_2\text{P}^{32}\text{O}_4$ and radioactivity was detd. and compared with that of exptl. animals. Lungs of the latter contained more than 10 times as much radioactivity as those of controls, but muscle, bone, heart, kidney, brain, and bone marrow of exptl. animals were less radioactive than those of controls; results were not definite in blood and liver.

Cyrus C. Sturgis, Jr.

ZAMANSKIY, L.N.; LOPUSHANSKIY, A.I.; SIVER, P.Ya.; KAPRALOVA, Ye.V.

Effect of urea on the incorporation of inorganic phosphorus into
regenerating tissue [with summary in English] Vop.med.khim. 2 no.5:
346-349 S-O '56. (MLRA 9:12)

1. Kafedra biologicheskoy khimii Chernovitskogo meditsinskogo instituta
(PHOSPHORUS, metabolism,
regenerating tissue, eff. of urea on inclusion (Rus))
(REGENERATION, metabolism in,
phosphorus inclusion in regenerating tissue, eff. of urea
(Rus))
(UREA, effects,
on regenerating tissue inclusion of phosphorus (Rus))

ZAMANSKIY, L.N.; LOPUSHANSKIY, A.I.; ZHILA, Ye.S.; KAPRALOVA, Ye.V.
(Chernovitsy)

Biochemistry of the stimulation of experimental wound healing.
Skeper.khir. 4 no.4:56 J1-Ag '59. (MIRA 12:11)
(WOUND HEALING metabolism)

KAPRALOVA, YE.V., KATS, B.I., IOPUSHANSKIY, A.I., SIVER, P.YA.,
YUKHIMETS, A.D., ZHILA, YE.S., ZAMANSKIY, L.N. (USSR)

"Some Data on the Biochemistry of the Enhancement
of Regeneration."

Report presented at the 5th Int'l. Biochemistry Congress,
Moscow, 10-16 Aug 1961

KARGIN, V.A., akademik; KOZLOV, P.V., MIRLINA, S.Ya.; KAPRALOVA, Z.A.

Breakdown and formation of structure in natural proteins in the
course of their transfer through nonporous membranes. Dokl. AN
SSSR 135 no.6:1421-1424 D '60. (MIRA 13:12)

1. Moskovskiy gosudarstvennyy universitet im.M.V.Lomonosova.
(Proteins)

KAPRALOVA, Z.A.; MIRLINA, S.Ya.; KOZLOV, P.V.; KARGIN, V.A.; POPOVA, L.A.

Structural transformations in fibrillar proteins. Vysokom.sped.
4 no.3:321-327 Mr '62. (MIRA 15:3)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Proteins)

KARGIN, V.A.; KOZLOV, P.V.; MIRLINA, S.Ya.; KAPRALOVA, Z.A.

Breakdown and rebuilding of protein structures. Vysokom.soed.
4 no.2:167-173 F '62. (MIRA 15:4)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Proteins)

KAPRALOVA, Z.A.; MIRLINA, S.Ya.; KOZLOV, P.V.; KARGIN, V.A.; KHOKHLOVA, V.K.

Structural transformations in globular proteins. Vysokom.soed.
4 no.3:328-333 Mr '62. (MIRA 15:3)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Proteins)

KARGIN, V.A.; KOZLOV, P.V.; MIRLINA, S.Ya.; KAPRALOVA, Z.A.;
CHEBOTKEVICH, P.F.

Mass transfer and structure-forming processes in the
polymer-homologous series of polyacrylic acid and fractionated
gelatin. Vysokom. soed. 4 no.12:1881-1886 D '62. (MIRA 15:12)

1. Moskovskiy gosudarstvennyy universitet imeni
M.V. Lomonosova.

(Gelatin) (Acrylic acid) (Mass transfer)

KAPRALOVA, Z.A.; MIRLINA, S.Ya.; KOZLOV, P.V.; KARGIN, V.A.;
KALYUZHNYA, R.I.

Structure formation and enzymatic activity of pepsin and
trypsin fragments in the course of autolysis and electro-
dialysis. Vysokom. soed. 5 no.12:1870-1874 D '63.

(MIRA 17:1)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova.

KAFRALYAKOV, Ivar.

In a factory collective of the Volunteer Organization for
Assistance to the Defense of the Country. Voen. gran. 40
no.9:5 S '64. (MIRA 17:12)

1. Predsedatel' zavodskogo komiteta Dobrovol'nogo obshchestva
sodeystviya oborone, Troyan, Belgariya.

KAPRAN, P.P.

Fight against spillage along the track. Zhel. dor. transp. 37 no.6:
70 Ag '55. (MIRA 12:8)

1. Starshiy dorozhnyy master stantsii Kupyansk Uzlovoy.
(Railroads--Track)

KAPRAN, K.Ye.; KARMANOVA, K.S.

Experience of the Central factory laboratory. Ogneupory
27 no.11:530-532 '62. (MIRA 15:11)

1. Chasov-Yarskiy kombinat ogneupornykh izdeliy.
(Refractory materials--Testing)

KAPRAN, R.G. (Stalino)

Copper and barium of content whole blood and some hemopoietic tissues in acute leukemia. Klin.med. 36 no.7:104-106 J1 '58 (MIRA 11:11)

1. Iz kliniki gospiatal'noy terapii (zav. - prof. A.S. Voronov) i kafedry biokhiii (zav. - prof. A.O Voyner) Stalinskogo meditsinsko go instituta.

(LEUKEMIA, metab.

barium & copper in blood & hemopoietic tissue (Rus))

(BARIUM, metab.

blood & hemopoietic tissue in acute leukemia (Rus))

(COPPER, metab.

same (Rus))

KAPRAN, S. K.

32701. KAPRAN, S. K. i AFANAS'YEVA, Ye..Yu. O pliyanii ismeneniya davleniya v oblasti serogo bugrana krovyanoye davleniyei dykhaniye. Trudy kiyevsk. Nauch.-issled. Psikhonevrol. In-ta, T. XII, 1949, s. 158-64, 219-20

SO: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

KAPRAN, S.K.; AFANAS'YEVA, Ye. Yu.

Effect of hypophysectomy on the regeneration of morphological blood elements following abundant bloodletting. Medych. zhur. 23 no.3: 57-68 '53. (MLRA 8:2)

1. Kiivs'kiy psikhonevrologichniy institut i Kiivs'kiy institut perelivannya krovi.
(PITUITARY BODY) (BLOOD)

KAPRAN, S.K.; GRINBERG, M.A.

Effect of preservation time of stored blood on its cholinesterase activity. Medych.zhur. 24 no.6:72-77 '54. (MIRA 8:7)

1. Kiivskiy institut perelivannya krovi, patofiziologichna laboratoriya.

(BLOOD BANKS,
preserved blood, eff. of preserv. time on cholinesterase)
(CHOLINESTERASE, in blood,
eff. of preserv. time)

LEVI, I.I., author; POZDNEV, Yu.D., hand. tekhn. rad.; It. izm.
tekhn. rad.; YAPRACHOV, G.I., tekhn.; ANNIENKOV, V.A., tekhn.

Stability of lenticles. Lit. proizv. no. 7:40-42 51 '85.

(MIRA 18:8)

KYARDI, Ya., brigadir (g.Tallin); KAPRANOV, G. (g.Nal'chik); KNYAZEV, Yu. (g.Nal'chik); SHAPKUN, N., inzh. (g.Krasnodar); KHOKHLOV, Yu. (g.Ural'sk); VALENTINOV, N., inzh.; NOVINSKIY, G., vrach

Innovations. Izobr. i rats. no.9:12-13 S '61. (MIRA 14:8)

1. Nachal'nik tekhnicheskogo otdela zavoda imeni Zemlyachki, g. Ural'sk (for Khokhlov).

(Technological innovations)

KAPRANOV, G.M., inzh. (Leningrad)

Aerial photography of the right-of-way. Put' 1 put. khoz. no.8:26

Ag '59.

(MIRA 13:3)

(Railroads--Maintenance and repair) (Photography, Aerial)

KAPRANOV, I.

Economic cooperation of the U.S.S.R. with socialist countries.
Vnesh.torg. 43 no.2:3-13 '62. (MIRA 16:2)
(Communist countries--Economic assistance, Russian)

ZOLOTAREV, V.I.; AVSENEV, Yu.M.; KAPRANOV, I.A.; KISVIANTSEV, L.A.; PEKSEV, Yu.A.; SHVETSOV, N.I.; TELEGIN, Ya.I.; POTAPOV, V.I.; KISVIANTSEV, L.A.; ZYKOV, A.A.; NETUSOV, A.A.; SENIN, V.P.; MAKSIMOVA, A.P.; NIKOLAYENKO, Zh.I.; VOLKOV, N.V.; KALASHNIKOV, A.A.; FLAKSIN, S.V.; POPOV, N.N.; KARSHINOV, L.N.; YAKIMOVA, T.A.; BASHKANIKHIN, I.K.; KETKOVICH, A.Ya.; SHALASHOV, V.P.; VORONKOV, F.N.; VEKSHIN, G.K.; CHISTYAKOV, M.A.; IVANOV, N.I., red.; SLADKOVSKIY, M.I., red.; LEPIKOVA, Ye., red.; MOSKVINA, R., tekhn.red.

[Development of the economy of the people's democracies; a survey for 1957] Razvitie ekonomiki stran narodnoi demokratii; obzor za 1957 g. Pod red. N.I. Ivanova i dr. Moskva, Izd-vo sotsial'no-ekon. lit-ry, 1958. 610 p. (MIRA 12:2)

1. Moscow. Nauchno-issledovat. kon'yunktorny institut.
(People's democracies) (Economic conditions)

KAPRANOV, I.A.

~~Automobile industry in the Chinese People's Republic. Biul.tekh.-ekon.~~
inform. no.9:77-79 '58. (MIRA 11:10)
(China--Automobile industry)

ZOLOTAREV, V.I.; PEKSHEV, Yu.A.; AVSENEV, Yu.M.; KAPRANOV, I.A.; KISVYANTSEV, L.A.; SHVETSOV, N.I.; TELEGIN, Ya.I.; POTAPOV, V.I.; KISVYANTSEV, L.A.; ZYKOV, A.A.; NETRUSOV, A.A.; SENIN, V.P.; MAKSIMOVA, A.P.; NIKOLAYENKO, Zh.I.; VOLKOV, N.V.; KALASHNIKOV, A.A.; PLAKSIN, S.V.; POPOV, N.N.; KARSHINOV, L.N.; YAKIMOVA, T.A.; BASHKANIKHIN, I.K.; KETKOVICH, A.Ya.; SHALASHOV, V.P.; VORONKOV, F.N.; VEKSHIN, G.K.; CHISTYAKOV, M.A.; IVANOV, N.I., red.; SLADKOVSKIY, M.I., red.; LEPNIKOVA, Ye., red.; MOSKVINA, R., tekhn.red.

[Economic development of the people's democracies] Razvitie ekonomiki stran narodnoi demokratii; obzor za 1957 g. Pod red. N.I. Ivanova i dr. Moskva, Izd-vo sots.-ekon.lit-ry, 1958. 610 p. (MIRA 12:7)

1. Moscow. Nauchno-issledovatel'skiy kon'yunktorny institut. (Economic conditions)

KAPRANOV, Ivan Andreyevich; BOGATYRENKO, Z.S., red.; SAVCHENKO, Ye.V.,
tekh.red.

[Industry in the Chinese People's Republic] Promyshlennost'
Kitaiskoi Narodnoi Respubliki. Moskva, Izd-vo "Znanie," 1959.
31 p. (Vsesoiuznoe obshchestvo po rasprostraneniю politicheskikh
i nauchnykh znaniy. Ser. 3: Ekonomika, no.12) (MIRA 12:5)
(China--Industries)

KLIMOV, Yu.M.; CHIKIN, V.V.; ANISIMOV, N.I.; BARSKOV, I.M.; VINOGRADOV, Yu.V.; GAVRILOV, A.N.; GAUKHMAN, L.A.; GOLOV, A.P.; GOL'DMAN, L.S.; GHEBENNIKOV, G.I.; YEFIMOV, A.N.; ZALUTSKIY, M.S.; ZAYTSEVA, A.V.; OIYRYSH, A.I.; KANDARITSKIY, V.S.; KAPRANOV, I.A.; KOVALEV, N.I.; KOVALEVSKIY, K.A.; KOLOSOV, A.P.; KRIVOV, A.S.; KRYLOV, R.M.; LEVITAS, A.G.; MALYGIN, M.A.; MORALEVICH, Yu.A.; MOTYLEV, A.S.; NESTEROV, M.V.; NIKOL'SKIY, A.V.; ORLOV, G.M.; ORLOV, Ya.L.; PARENSKIY, V.M.; POLYAKOV, A.S.; RUBIN, V.I.; SVANIDZE, K.N.; STRIGIN, I.A.; TAKOYEV, K.F.; TRUBNIKOV, S.V.; CHERNYSHEVA, L.N.; CHESNOKOV, N.Ye.; SHAMBERG, V.M.; STRUMILIN, S.G., akademik, red.; ANTOSSENKOVA, L., red.; MIKAKLYAN, E., red.; MUKHIN, Yu., tekhn.red.

[Dictionary of the seven-year plan from A to Z] Slovar' semiletki ot A do IA. Moskva, Gos.izd-vo polit.lit-ry, 1960. 397 p.

(MIRA 13:?)

(Russia--Economic policy)

KAPRANOV, Ivan Andreyevich; LIVSHITS, Ya.L., red.; NAZAROVA, A.S.,
tekhn. red.

[The two types of aid] Dva vida pomoshchi. Moskva, Izd-vo
"Znanie," 1962. 31 p. (Novoe v zhizni, nauke, tekhnike.
VII Seria: Mezhdunarodnaia, no.17) (MIRA 15:9)
(Economic assistance) (Underdeveloped areas)

KAPRANOV, M.V.

SUBJECT USSR / PHYSICS
AUTHOR KAPRANOV, M.V.
TITLE The Reception Band in a Frequency-Phase-Auto Base.
PERIODICAL Radiotekhnika 11, fasc. 12, 37-52 (1956)
Issued: 1 / 1957

CARD 1 / 2

PA - 1809

With rapidly acting systems of a frequency autobase a reactance tube is usually used as a control element. Two types are possible: either with a frequency- or with a phase detector as discriminator. The second has as yet to be investigated with sufficient thoroughness. In a phase autobase system it is possible to filter disturbances in the low frequency range by using filters of lower frequency according to the phase detector. As in this system inert elements are present in the high frequency range, synchronized operation does not occur in the case of all initial conditions. In the interval of detuning between the synchronous and the reception band synchronization cannot be assumed as stable for great fluctuations. It is the task of this work to find an analytical expression for the reception band within the entire domain of detuning up to the synchronization band. At first the differential equation and the phase plane of the system is derived and found with an integrating filter. Next, the reception band is determined with an integrating filter. The quantity Ω is equal to the product of the slope S_p of the modulation characteristic of the reactance tube and the maximum rectified voltage E of the phase detector, and is described as the control parameter of the system. This parameter is the maximum detuning caused by the phase detector and the reactance tube. It follows from the two diagrams that the re-

Radiotekhnika 11, fasc. 12, 37-52 (1956)

CARD 2 / 2

PA - 1809

ception band grows with an increase of this parameter. Next, the reception band is determined in consideration of delay. From the attached diagram it may be seen that the influence exercised by delay on the reduction of the reception band grows in the case of small time constants. The horizontal part of the detuned curve $\gamma_3 = 1$ corresponds to the case of a node in the phase plane; it becomes smaller with an increase of the delay and vanishes completely in the case of the critical delay $\Delta_1 = 1$. γ_3 denotes detuning and Δ_1 is the dimensionless time of delay. Lastly, the reception band is investigated with a proportionally integrating filter. The diagram shown here proves that those filters make it possible to extend the width of the reception band up to the limit of the synchronization band. One and the same value may be obtained for the reception band in the case of different conditions prevailing as to the time constants Δ and Δ_1 with respect to each other. (Δ - the dimensionless time constant of the filter). It is shown that in this system it is possible, with a proportional integrating filter, to select the reception band and the filtration of disturbances independently, whereas this is not possible by means of an integrating filter.

INSTITUTION:

KAPRANOV, M. V. Cand Tech Sci -- (diss) "Automatic Frequency
Phase Control." Mos, 1957. 11 pp 20 cm. (Min of Higher Education
USSR, Mos Order of Lenin Power Engineering Inst im V. M. Molotov),
100 copies (KL, 25-57, 113)

KAPRANOV, M.V.

Filtration of interferences in connection with phase-automatic frequency control. Nauch.dokl.vys.shkoly; radiotekh. i elektron.no.1:162-175 ' 58. (MIRA 12:1)

1. Kafedra radiopere dayushchikh ustroystv Moskovskogo energeticheskogo instituta.

(Radio filters)

YEVTYANOV, S.I.; KAPRANOV, M.V.; TERESHINA, G.N.

Band oscillator with increased frequency stability. Nauch.dokl.vys.
shkoly; radiotekh. i elektron. no.2:89-98 ' 58. (MIRA 12:1)

1. Kafedra radioperedayushchikh ustroystv Moskovskogo energeticheskogo
instituta.

(Oscillators, Electric)

KAPRANOV, M.V.

Lock band for phase automatic frequency control. Nauch.dokl.vys.shkoly;
radiotekh. i elektron. no.2:162-170 ' 58. (MIRA 12:1)

1. Kafedra radiopere dayushchikh ustroystv Moskovskogo energeticheskogo
instituta.

(Radio frequency modulation--Receivers and reception)

KAPRANOV, M.V.

Automatic phase control in synchronized oscillators. Nauch.dokl.
vys.shkoly; radiotekh.i elektron. no.4:129-137 '58.

(MIRA 12:6)

1. Kafedra radioperedayushchikh ustroystv Moskovskogo energetiche-
skogo instituta.

(Oscillators, Electric)

SOV/142-58-4-1/30

AUTHOR: Kapranov, M.V.

TITLE: Band Width of an Automatic Phase Frequency Control with Linear Characteristics of a Phase Detector (Polosa zakhvata fazovoy avtopodstroyki chastoty s pryamougol'noy kharakteristikoy fazovogo detektora)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Radiotekhnika, 1958, Nr 4, pp 387-392 (USSR)

ABSTRACT: The paper examines the operation of a system for phase-regulation of frequency with a linear characteristic of the phase detector. The dependence of the band width on the parameter of the integrating filter at the output of the phase detector is determined. The author describes the block circuit of an automatic frequency phase control system, consisting of 2 frequency generators (regulating and standard generators), a phase detector, a filter for low frequency and a feed-back tube. The band width depends to a great extent on the type of filter and also on the characteristics of the phase detector,

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SOV/142-58-4-1/30

Band Width of an Automatic Phase Frequency Control with Linear
Characteristics of a Phase Detector

i.e. on the relation of output voltage to the input
phase. The author then deals with the computation of
the phase surfaces of the system, and determines its
band width. There are 1 circuit diagram, 3 diagrams
and 6 references, 3 of which are Soviet, 2 English and
1 Italian.

ASSOCIATION: Kafedra radioperedayushchikh ustroystv Moskovskogo
ordena Lenina energeticheskogo instituta (Chair
for Radio Transmitting Equipment of the Moscow Order of
Lenin Energetics Institute)

SUBMITTED: November 29, 1957

Card 2/2

KAPRANOV, M.V.

Phase detectors with a common load. Nauch. dokl. vys. shkoly;
radiotekh. i elektron. no.2:267-278 '59. (MIRA 14:5)

1. Kafedra radiopere dayushchikh ustroystv Moskovskogo energeticheskogo
instituta.

(Radio detectors)

9.3260 (3302,2104,1067)

S/109/60/005/011/003/014
E140/E483

AUTHORS: Kapranov, M.V., Ivanov, V.A. and Ivanova, N.N.

TITLE: Automatic Phase Control With Nonlinear Filter

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol.5, No.11,
pp.1774-1785

TEXT: In automatic phase control of oscillator frequency, the degree of noise filtering must decrease as the lock-in range increases. The article considers a nonlinear integrating network at the output of the phase detector consisting of opposed biased diodes in parallel with the integrating resistance (Fig.4). For small frequency deviation, hence with low output voltage from the phase detector, the circuit has a high time constant and good filtering properties. At large frequency (phase) excursion, the diodes short-circuit the resistance and the lock-in range approaches its maximum value. The equations of the system are derived assuming that the entire system except the filter is inertialess, the reactance tube characteristic is an unlimited straight line and that frequency modulation is not accompanied by parasitic amplitude modulation. The behaviour of the system is
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S/109/60/005/011/003/014
E140/E483

Automatic Phase Control With Nonlinear Filter

analysed in the phase plane and four types of limit cycles are found. The analysis shows that under the given assumptions it is possible to increase the filter time constant without limit while preserving the maximum lock-in band for a given noise level. The circuit was verified experimentally and only small differences between the measured and predicted results were found. There are 11 figures and 7 references: 3 Soviet and 4 non-Soviet.

SUBMITTED: January 15, 1960

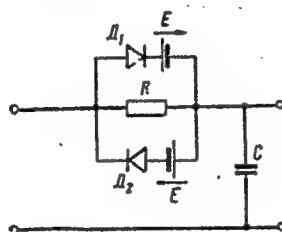


Fig.4.

Рис. 4.

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23005

S/108/61/000/006/001/008
D201/D305

9.3200

AUTHORS: Yevtyanov, S.I., and Kapranov, M.V., Members of the Society (See Association)

TITLE: Processes in high order frequency multipliers

PERIODICAL: Radiotekhnika, no. 6, 1961, 3 - 13

TEXT: In a multi-cascade frequency multiplier, complex processes of amplitude and phase modulation occur. These processes determine the characteristics of the output frequency spectrum. I.S. Gonorovskiy (Ref. 1: Radiosignaly i perekhodnyye yavleniya v radiotsepyakh (Radio Signals and Transient Phenomena in Radio Circuits), Svyaz'izdat, 1954) found the solution for the output voltage of a single stage frequency multiplier (YBΠ - UVP), using the methods of the theory of the complex variable. Yu.L. Sverdlov (Ref. 2: Radiotekhnika i elektronika No. 6, 1959) applied the method of Gonorovskiy to evaluate the phase modulation at the output of a multi-cascaded multiplier. In the present article the authors give an

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D201/D305

Processes in high order ...

approximate method which permits the obtaining of comparatively simple expressions for the envelope at the output of a single cascade frequency multiplier, the multiplier not necessarily having a single multiplying circuit, but a system of oscillating circuits very little damped. The expression for the output voltage envelope is determined using the Fourier integral method, preferred to that of Duhamel. From the basic equation

$$u(t) = Z(i\omega) i(t) \quad (1)$$

relating the voltage $u(t)$ at the load (considered as a four pole) to the current at its input ($i\omega$ is an operator and $Z = kZ_\alpha$, where $k = \frac{u}{u_\alpha}$ the transfer coefficient and Z_α - input impedance) the final expression for the envelope of the output voltage is derived as

$$u(t) = \operatorname{Re} \{ \pi n \bar{I}_n \sum_{\kappa=0}^{\infty} \bar{A}^* (t + \kappa T) e^{i\kappa\omega t} \}. \quad (13)$$

where \bar{I}_n is given by

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D201/D305

$$\bar{I}_n = \frac{1}{\pi} \int_0^{\pi} i(t) e^{-in\omega t} d(\omega t).$$

$\bar{A}^*(t)$ is the complex amplitude given by

$$\bar{A}^*(t) = \bar{A}(t) e^{-i\Delta\omega t}. \quad (11)$$

where $\bar{A}(t)$ is the complex amplitude of voltage resulting from a single pulse of current. It may be seen that in order to evaluate the output voltage of a frequency multiplier it is enough to determine the complex amplitudes $\bar{A}^*(t)$ and to add all complex amplitudes for particular pulses. If the load of the multiplier consists of a single oscillating circuit, the voltage across it due to a single current pulse will have the shape as given by

$$a(t) = \delta R e^{-\frac{1}{2}\omega_0 t} \sin \omega_0 t. \quad (14)$$

as cited in S.I. Yevtyanov (Ref. 3: Perekhodnye protsessy v priyemno - usilitel'nykh skhemakh (Transient Process in Receiver-Card 3/8

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Processes in high order ...

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Amplifying Circuits) Svyaz'izdat, 1948) where δ - the damping of the circuit and R - the resonant resistance of the circuit. Introducing the complex amplitude $\bar{A}(t)$ and the generalized detuning $\alpha = \frac{2\Delta\omega}{\omega_0\delta}$, the voltage across the circuit becomes

$$u(t) = \operatorname{Re} \bar{I}_n R \pi n \delta e^{-\frac{1}{2} \pi n \delta t} e^{i \omega_0 t} \sum_{n=0}^{\infty} q^n \quad (16)$$

where

$$q = e^{-(1+i\alpha)x}, \quad (17)$$

and

$$x = \pi n \delta. \quad (18)$$

Further, by introducing the dimensionless time

$$\tau = \frac{\delta}{2} \omega_0 t \quad (21)$$

and after several transformations the expression for the modulus of the output voltage envelope is derived as

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$$U(\tau) = I_n R \frac{x}{1 - e^{-x}} \frac{1}{\sqrt{1 + \left(\frac{2e^{-\frac{x}{2}} \sin \frac{\alpha x}{2}}{1 - e^{-x}} \right)^2}} e^{-\tau} \quad (22)$$

If the load circuit is tuned exactly to the n-th harmonic, i.e. if in Eq. (22) $\alpha = 0$

$$U(\tau) = I_n R \varphi(x) e^{-\frac{x\tau}{T}} \quad (24)$$

is obtained. In this expression the function $\varphi(x)$ reflects the influence of the order of harmonic and that of damping and is given by

$$\varphi(x) = \frac{x}{1 - e^{-x}} \quad (25)$$

Graphs are given of the output voltage envelope for several values

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Processes in high order ...

of the generalized damping $x = \pi_n \delta$ in the case of exact tuning to the n-th harmonic. The graphs show that with tuning of the output cct to higher harmonics, the output voltage is far from being monochromatic and that the maximum of the amplitude occurs for $t = 0$, i.e. at the beginning of the interval between current pulses. The changes in the output voltage amplitude, when the output circuit is retuned to the next harmonic, is considered next. A factor μ is introduced, which takes into account the influence of detuning α on amplitude

$$\frac{1}{\mu} = \sqrt{1 + \left(\frac{2e^{-\frac{x}{2}} \sin \frac{\alpha x}{2}}{1 - e^{-x}} \right)^2}$$

Its graph is given also which shows that for finite values of generalized damping the function $\mu(\alpha)$ represents a periodic function of detuning. Finally a multi-cascade frequency multiplier with a pass-band filter is considered. The analysis is based on the general expression

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$$\frac{1}{\mu} = \sqrt{1 + \left(\frac{2e^{-\frac{x}{2}} \sin \frac{\alpha x}{2}}{1 - e^{-x}} \right)^2}$$

and given for the case of a multiplier working into two coupled circuits. The resonance resistances of both primary and secondary are assumed to be equal, i.e. $R_1 = R_2 = R$, also $\delta_1 = \delta_2 = \delta$ and respective resonance frequencies $\omega_1 = \omega_2 = \omega_0$. The following conclusions are drawn: With the increase of the generalized damping $x = \pi n \delta$, troughs appear in the envelopes during the repetition period T with the corresponding increase of overshoots. For large enough values of x , several troughs may occur. The physical reason for these is the interference between primary and secondary circuit frequencies due to coupling. The theory given above has been experimentally checked. Illustrations show the oscillograms of voltages, obtained with a multiplier working into a pass-band filter

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D201/D305

Processes in high order ...

tuned to the 60th harmonic; one shows the voltage at the primary and the other, the voltage at the secondary. The coupling coefficient $\beta = 1.5$ and $x = 3$. [Abstractor's note: No other data of the experiment are given]. There are 6 figures and 3 Soviet-bloc references.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova (Radio Engineering and Electrical Communications Society im. A.S. Popov)
[Abstractor's note: Name of association taken from first page of journal]

SUBMITTED: December 8, 1960

Card 8/8

KAPRANOV, M.V.

Method for calculating the locking band during automatic phase
frequency trim. Elektrosviaz' 17 no.8:14-22 Ag '63.

(MIRA 16:8)

(Frequency regulation)

KAPRANOV, M.V.
AID Nr. 979-33 29 May

REFLEX KLYSTRON AS A FREQUENCY MULTIPLIER (USSR)

Belov, L. A., and M. V. Kapranov. Radiotekhnika i elektronika, v. 8, no. 4, Apr 1963, 600-611. S/109/63/008/004/008/030

A study is made of a reflex klystron frequency multiplier in which a voltage at the desired multiple frequency is applied between the repeller and the resonator. After the solution of equations for electron motion in the bunching space, the problem of finding harmonics of the convection current by means of double Fourier series is analyzed. In order to apply this method, the ac voltage on the repeller is considered as a signal which modulates the power-supply voltage. Solutions for both the asynchronous and the synchronous modes of the multiplier are given. Observations of klystron modes under various amplitudes of asynchronous outside excitation were made by using several reflex klystrons in

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AID Nr. 979-3 29 May

REFLEX KLYSTRON AS A FREQUENCY [Cont'd]

S/109/63/008/004/008/030

the 3- to 10-cm range. The results indicate that asynchronous external excitation suppresses the natural-oscillation modes and excites new modes which appear between them. Forced synchronous oscillations can be generated both coincident with free oscillation modes and between these modes, i. e., in regions where natural oscillations are excluded. Because the suppression of natural oscillations occurs under both synchronous and asynchronous conditions, forced oscillations are possible at regeneration factors both less than and greater than 1. The existence of optimal values of both the outside forcing amplitude and the multiplicity factor, at which the power of forced oscillations is maximum, was noted. It is also shown that the amplitude drop of the multiplied signal, which is due to inaccurate tuning of the resonator, can be partially compensated by a change in the transit angle.

[GS]

Card 2/2

BELOV, L.A.; KAPRANOV, M.V.

Frequency multiplier using a reflex klystron. Radiotekh. 1
elektron. 8 no.4:600-611 Ap '63. (MIRA 16:4)
(Klystrons) (Microwaves) (Frequency multipliers)

L 35907-66 EWT(1)

ACC NR: AP6010787

SOURCE CODE: UR/0106/66/000/002/0023/0030

AUTHOR: Belov, L. A.; Blagoveshchenskiy, M. V.; Ivanov, V. A.;
Kapranov, M. V.; Utkin, G. M.; Khryunov, A. V.

ORG: none

TITLE: Automatic phase control in reflex-type amplifiers

SOURCE: Elektrosvyaz', no. 2, 1966, 23-30

TOPIC TAGS: SHF amplifier, reflex klystron, electronic amplifier

ABSTRACT: An automatic phase control (APC) is suggested for widening the band and stabilizing the operation of reflex-type SHF amplifiers. A phase detector compares the input- and output-signal phases, and the error signal is used to control the phase shift; this can be done, for example, by controlling the repeller voltage. The article theoretically investigates the effect of signal-frequency

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UDC: 621.375.9:621.3.072.7

L 35907-66

ACC NR: AP6010787

deviation and APC-circuit parameters on the amplitude and phase in the reflex amplifier; also, the filtering characteristics of such an amplifier are explored. Equations describing the resonance curve and phase characteristic of an APC amplifier are set up; the introduction of APC considerably widens the amplification area. Curves are given for selecting the APC parameter to ensure specified noise filtration. An experimental verification with a reflex klystron permitted widening a 3-Mc amplifier band to 32 Mc (at 3000 Mc; gain, 25 db). Orig. art. has: 7 figures and 15 formulas.

SUB CODE: 09 / SUBM DATE: 05Jan65 / ORIG REF: 004 / OTH REF: 002

Card 2/2 *llh*

L 03620-67 EWT(1)

ACC NR: AP6019012

SOURCE CODE: UR/0106/66/000/006/0044/0052

AUTHOR: Belov, L. A.; Blagoveshchenskiy, M. V.; Ivanov, V. A.;
Kapranov, M. V.; Utkin, G. M.; Khryunov, A. V.

22
B

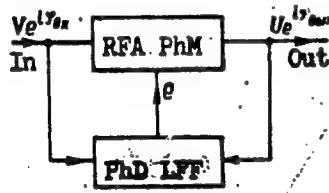
ORG: none

TITLE: Automatic phase control in amplifiers [Reported at the MEI Annual Conference and at the NTORIE Conference, 1964]

SOURCE: Elektrosvyaz', no. 6, 1966, 44-52

TOPIC TAGS: electronic amplifier, rf amplifier, automatic phase control

ABSTRACT: A possibility is discussed of stabilizing the phase of an rf amplifier by means of an automatic-phase-control feedback loop. Phase modulator PhM (see figure) is intended for compensating phase drifts that arise in rf amplifier RFA; these two devices may be designed as a joint unit or as separate units. Phase detector PhD produces an error signal which is due to a deviation of the output-input phase



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UDC: 621.396.647

L 03620-67

ACC NR: AP6019012

difference from its nominal value. To reduce this error signal to zero, a phase shifter is connected to one of the PhD inputs; this makes a phase-difference reference unit. The error signal between PhD and PhM can be amplified by a d-c amplifier with a 1-f filter LFF, which should take into account the inertia of the d-c amplifier and PhD. The error signal e applied to PhM corrects the phase deviation. Stabilizing characteristics of the automatic phase control are studied by setting up and examining its differential equations. The operation of the automatic phase control is illustrated by an example of a simple single-circuit resonant rf amplifier, with a reactance tube playing the role of PhM. The small-disturbance stability of the automatic-phase-control system is investigated for the cases of single-section and two-section RC filters. Orig. art. has: 7 figures and 29 formulas.

SUB CODE: 09 / SUBM DATE: 20Jan65 / ORIG REF: 003

Cord 2/2 awm

S/123/61/000/016/004/022
A004/A101

AUTHORS: Leont'yeva, V.P., Sheydeman, I.Yu., Kapranov, P.N.
TITLE: Investigating the viability of some synthetic glues on viscosimeters of different types
PERIODICAL: Referativnyy zhurnal. Mashinostroyeniye, no. 16, 1961, 25, abstract 16B140 ("Tr. Kuybyshevsk. aviats. in-t", 1960, no. 10, 163 - 168)
TEXT: Not abstracted

Gard 1/1

KAPRANOV, P. N.

ABRAMOVICH, I.I., prof., ANBINDER, A.G., inzh., ANTOSHIN, Ye.V., inzh.,
 ARKHANGEL'SKIY, L.A., inzh., ASTAF'YEV, S.S., kand. tekhn. nauk,
 AFANAS'YEV, L.A., inzh., BARGSHTEYN, I.I., inzh., BORISOV, Yu. S.,
 inzh., red., BYALYY, I.L., inzh., VETVITSKIY, A.M., inzh., GERSHMAN,
 D.Kh., inzh., GINZBURG, Z.M., inzh., GOROSHKIN, A.K., inzh.,
 YEVDOKIMCHIK, Kh.I., inzh., ZHIKH, V.A., kand. tekhn. nauk,
 ZABYVAYEV, Ye. I., kand. tekhn. nauk, [deceased], ZOBIN, V.S., inzh.,
 IVANOV, G.P., kand. tekhn. nauk, KAPRANOV, P.N., inzh., KONDRATOVICH,
 V.M., inzh., KOSTEREV, S.K., inzh., KOVAL'SKIY, N.N., inzh., KRUGLYAK,
 L.A., inzh., LUKYANOV, T.P., inzh., LAPIDUS, A.S., kand. tekhn. nauk,
 LIVSHITS, G.A., kand. tekhn. nauk, LISHANSKIY, I.M., inzh., MIGALINA,
 Ye.Ya., inzh., NOSKIN, R.A., kand. tekhn. nauk; PRONIKOV, A.S.,
 doktor tekhn. nauk, REGIRER, Z.L., kand. tekhn. nauk, RUDYK, M.A.,
 inzh., SOKOLOVA, N.V., inzh., SAKLINSKIY, V.V., inzh., SAKHAROV, V.P.,
 inzh., TOKAR', M.Kh., inzh., TKACHEVSKIY, G.I., inzh., KHRUNICHEV,
 Yu.A., kand. tekhn. nauk, TSOPIN, K.G., inzh., red.; SHEYNGOL'D, Ye. M.,
 inzh., SOKOLOVA, T.F., tekhn. red.

[Handbook for machinists of machinery plants in two volumes] Spravochnik
 mekhanika mashinostroitel'nogo zavoda v dvukh tomakh. Moskva, Gos.
 nauchno-tekhn. izd-vo mashinostroit. lit-ry. Vol. 2. [The technology
 of repair work] Tekhnologiya remonta. Otv. red. toma IV. S. Borisov,
 1958. 1059 p. (MIRA 11:10)

(Machinery--Maintenance and repair)
 (Machine-shop practice)

Handbook for Mechanics (Cont.)

SOV/1361

reconditioning and making of parts in maintenance operations; metal-working, hoisting, and pipe-fitting; finishing operations involved in maintenance work; checking parts for precision; basic bench and assembly work; maintenance of power equipment; and maintenance of foundations.

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15.1000

24576

9/137/61/000/005/029/060
A006/A106

AUTHORS: Leont'yeva, V.P., Sheydeman, I.Yu., Kapranov, P.N.

TITLE: Investigation of the viability of some synthetic glues on viscosimeters of various types

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 5, 1961, 57, abstract 5E408 ("Tr. Kuybyshevsk. aviats. in-t", 1960, no. 10, 163 - 169)

TEXT: The authors studied kinetics of increasing viscosity in an open container of a group of glues, employed in aviation engineering, i.e. multi-purpose resin glues 6Ф 2 (BF-2) and 6Ф 4 (BF-4), (MKhPTU 1367-49); 6Ф 6 (BF-6) (TU 1726-48); carbinol glue (AMTU 319-52); resin-rubber glue 88 (MKhPTU 1542-49); leuconate (TUMKhP 1841-52) and PA-6 (RA-6) (MKhPVTU 4082-55). The increase of viscosity was determined on viscosimeters Ф 3 - 36В (FE-36V), БЗ - 4 (VZ-4), on a НИИ К Л (NIIKL) funnel, and on a Geppler type ball viscosimeter with eccentric dropping of the ball. As a result of the investigation performed, approximate values for the general viability of the aforementioned glues in an open container were established by determining the relative viscosity on a FE-36V viscosimeter. It was also found that when determining the viscosity of a very liquid leu-

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Investigation of the viability . . .

24576

S/137/61/000/005/029/060
A006/A106

conate, it is expedient to employ the VZ-4 viscosimeter; for low-viability glues, such as carbinol glue with a filler in a certain time gap, it is recommended to use the NIILK funnel. For the rest of glues the FE-36V device is most suitable; it is widely used in the aviation industry. The accurate but expensive Geppler viscosimeter should be used when proceeding with investigations which require the determination of absolute viscosity. From the results obtained the authors derived for BF-2, BF-4, BF-6, RA-6, 88 and carbinol glues without fillers approximate formulae (direct equations) for the conversion of viscosities determined in FE degrees on the FE-36V device to viscosity in seconds of the VE-4 and NIILK viscosimeters and to viscosity in centipoise of the Geppler viscosimeter. The results obtained may serve in practical work with glues for the correct determination of the technological viscosity at various stages of the gluing process.

V. T.

[Abstracter's note: Complete translation]

Card 2/2

KRAYNOV, S.R.; KAPRANOV, S.D.

Using the hydrochemical method of prospecting for boron deposits.
Sov.geol. 5 no.8:92-103 Ag '62. (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii
i inzhenernoy geologii.
(Boron) (Prospecting)

L 10269-67 EWT(1) GW
ACC NR: AP7003095

SOURCE CODE: UR/0007/66/000/007/0846/0853

KRAYNOV, S. R., RUBEYKIN, V. Z., KAPRANOV, S. D., KOLOTOV, B. A., PETROVA, N. G., and KISELEVA, All-Union Scientific Research Institute of Hydrogeology and Engineering Geology, Moscow (Vsesoyuznyy nauchno-issledovatel'skiy gidrogeologii i inzhenernoy geologii)

"Some Peculiarities of Beryllium Geochemistry in Underground Waters"

Moscow, Geokhimiya, No 7, Jul 66, pp 846-853

TOPIC TAGS: underground water, geochemistry, beryllium compound

ABSTRACT: On the basis of beryllium distribution study in various types of underground waters (subsoil, carbonated) it has been established that the beryllium may be rather widely spread in these waters. Maximum beryllium contents are established in subsoil aureole waters of pneumatolytic deposits as well as noncarbonated waters of crystalline rocks. The main forms of beryllium migration in underground waters are the oxide and fluorine-and-carbonate-beryllates.

G. A. Volkov and A. K. Lisitsyn served as consultants in determining the forms of beryllium migration in water. Orig. art. has: 6 figures and 5 tables. [JPRS: 37,428]

SUB CODE: 08, 07 / SUBM DATE: 29Jul65 / ORIG REF: 011 / OTH REF: 005

Card 1/1 *bip*

UDC: 550.42:546.45-551.49

KAPRANOV, V.

Checking the output of marine diesel engines. Mor.flot.21
no.2:24-25 F '61. (MIRA 14:6)

1. Starshiy mekhanik teplokhoda "Floreshty."
(Marine diesel engines)

ROZENFEL'D L., kand.khim.nauk; GEMERLING, G., kand.tekhn.nauk; CHERNOV, A.,
inzh.; KAPRANOV, V., inzh.; KUTINA, M., inzh.

Improving the manufacturing techniques for air-entrained fly ash
concrete. Na stroi.Ros no.2:33-34 F '61. (MIRA 14:6)

(Air-entrained concrete)

KAPRANOV, V.N.; LOSKUTOV, V.A.; FEYGIN, M.M.; OSINNYKH, V.Ya.

Device for cleaning metallic reinforcements. Mashinostroitel' no.2:20
P '63. (MIRA 16:3)

(Metal cleaning)

ACC NR: AR6020053

SOURCE CODE: UR/0276/66/000/001/V001/V001

AUTHOR: Kapranov, V. N.

TITLE: Investigation of the effect which deformation rate has on the flow of metal into a stamp cavity

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya, Abs. 1V3

REF SOURCE: Sb. Mashiny i tekhnol. obrabotki met. davleniyem. Omsk, 1965, 104-115

TOPIC TAGS: metal deformation, flow kinetics, metal pressing

ABSTRACT: Preliminary results are given from an investigation of the effect which rate of deformation has on the length of a pressed bar during reverse pressing. The testing was done on a vertical impact machine and a horizontal powder impact tester designed by the author (the unit is described). The initial rates of deformation were 3-50 m/sec. Lead specimens were pressed with a diameter of 20 mm and a length of 30 mm with a drawing factor of 6.25. The rate of deformation was determined chiefly by computation (the method is given) and also by using high-speed photography (the system is described). It is found that a neck is formed on the pressed bar at a rate of 23 m/sec; an increase in the rate lead first to ordinary and then to double and triple tearing of the pressed bar (at rates above 34 m/sec); the length of the pressed bar decreases with an increase in the rate of deformation. 10 illustrations. Bibliography of 4 title. S. Kolesnikov. [Translation of abstract]

SUB CODE: 13,20

Card 1/1

UDC: 621.731.42

DYATLOV, A.V.; KAPRANOV, V.P.

Calculation of flexible beams with discontinuous joints. Trudy
DKHTI no.10:155-160 '60. (MIRA 14:1)
(Deformations (Mechanics))

KAPRANOV, V. V.

Cand Tech Sci - (diss) "Semiautoclave method of manufacturing gas-foamed concrete /gazozolobeton/" Sverdlovsk, 1961. 19 pp;
(Ministry of Higher and Secondary Specialist Education RSFSR,
Ural Polytechnic Inst imeni S. M. Kirov); 150 copies; price not
given; (KL, 6-61sup, 218)

KAPRANOV, V.V., starshiy prepodavatel'

Mechanism of the hardening of cellular concrete at increased
temperature. Sbor. trud. Inzh.-stroi. fak. Chel. politekh. inst.
no.3:147-156 '63. (MIRA 17:9)

KAPRANOV, I.

Soviet technical assistance to foreign countries. Vnesh.
torg. 41 no.6:3-15 '61. (MIRA 14:7)
(Technical assistance)

ACCESSION NR: AP4041157

S/0020/64/156/004/0897/0900

AUTHORS: Benderskiy, V. A.; Kogan, B.Ya.; Abramov, Yu.Yu.; Kapranova, L. Ye.

TITLE: Study of the sticking levels in organic photoconductors

SOURCE: AN SSSR. Doklady*, v. 156, no. 4, 1964, 897-900

TOPIC TAGS: organic photoconductor, electronic paramagnetic resonance, electron sticking, sticking level

ABSTRACT: The efficiency of the photoconducting organic materials depends on the drift velocity of the carriers. The latter has been found by A. Bree and W. G. Schneider, (Confer. Elect. Conduct. Organic Solids, 1961) to be affected by the electron sticking which leads to a greater inertia and low quantum yield. In order to eliminate the effect of sticking, the present authors have measured the photoconductivity and the spectra of the electronic paramagnetic resonance at a high intensity of illumination. The material investigated was triphenyl-methane dyes. The measurements were conducted at continuously changing temperature (100 to 350K).

Cord 1/2

ZYSMAN, A.I., inzh.; KAPRANOVA, N.V., red.

[Molding wall elements using lime-sand concretes] K voprosu
formoobrazovaniia elementov stenovykh ogradhdenii iz izvestkovo-
peschanogo betona. Minsk, Redaktsionno-izdatel'skii otдел BPI
im. I.V.Stalina, 1959. 29 p. (MIRA 13:3)
(Concrete blocks) (Walls)

YERMOLENKO, N.N., kand.tekhn.nauk; LAMBIN, L.N., inzh.; KAPRANOVA, N.V..
red.

[Method for drawing diagrams representing multicomponent systems
and using it in the synthesis of new glasses] Metod postroeniia
diagramm mnogokomponentnykh sistem i ispol'zovanie ego pri sinteze
novykh stekol. Minsk, Redaktsionno-issl.otdel BPI im. I.V.Stalina,
1959. 34 p. (MIRA 13:7)
(Glass manufacture--Chemistry)

AREKHOV, V.Z.; SHINKEVICH, N.I., dotsent, red.; KAPRANOVA, N.V., red.

[Handbook on technical drawing; geometrical drawing and a collection of problems] Posobie po tekhnicheskomu cherscheniu; geometricheskoe chershenie i sbornik zadach. Pod obshchei red. N.I.Shinkevicha. Minsk, Red.-izdatel'skii otdel BPI im. I.V. Stalina, 1959. 93 p. (MIRA 13:6)
(Geometrical drawing--Study and teaching)

ODEL'SKIY, E.Kh.; KAPRANOVA, N.V., red.; YARISH, Ye.I., tekhnred.

[Gas manufacture] Gazosnabzhenie. Minsk, Red.-izd.
otdel BPI im. I.V.Stalina, 1959. 111 p. (MIRA 12:10)
(Gas manufacture and works)

KAPRANOVA, N.V.

BEZBORODOV, M.A.; prof., doktor tekhn. nauk, akademik; BOBKOVA, N.M.;
BREKHOVSKIY, S.M.; YERMOLENKO, N.N.; MAZO, E.E.; PORAY-KOSHITS,
Ye.A.; KAPRANOVA, N.V., red.; KUZ'MENOK, P.T., tekhnred.

[Diagrams of vitreous systems] Diagrammy stekloobraznykh sistem.
Minsk, Redaktsionno-izdatel'skii otдел BPI im. I.V. Stalina, 1959.
313 p. (MIRA 13:3)

1. AN BSSR (for Bezborodov).
(Glass manufacture—Chemistry)
(Systems (Chemistry))

ODEL'SKIY, Yakov Emmanuilovich ; KAPRANOVA, N V., red.; KONCHITS, Ye.P.,
tekhn. red.

[Protective properties of ventilated built-up roofs] Zashchitnye
svoistva ventiliruemyykh sovmeshchennykh krush. Minsk, Redaktsionno-
izd. otdel BPI im. I.V.Stalina, 1960. 64 p. (MIRA 14:10)
(Roofing, Concrete)

VERBITSKIY, Ivan Ivanovich; KAPRANOVA, N.V., red.; KUZ'MENOK, P.T.,
tekhn. red.

[Electrostatics and electromagnetism] Elektrostatika i elektro-
magnetizm. Izd.2., ispr. i dop. Minsk, Redaktsionno-
izdatel'skii otel BPI im. I.V.Stalina, 1961. 290 p.

(MIRA 15:2)

(Electromagnetism) (Electrostatics)

LUKASHEV, Konstantin Ignat'yevich, akademik; KAPRANOVA, N.V., red.;
ZIMA, Ye.G. [Zima, IE.H.], tekhn. red.

[New horizons of science] Novye gorizonty nauki. Minsk.
1962. 31 p. (Obshchestvo po rasprostraneniu politicheskikh
i nauchnykh znaniy Belorusskoi SSR, no.7) (MIRA 15:7)

1. Akademiya nauk Belorusskoy SSR (for Lukashev).
(Technology)

PUZIKOV, Petr Dmitriyevich, kand. filosof. nauk; KAPRANOVA, N.V.,
red.; ZIMA, Ye.G., tekhn. red.

[Science is an immediate productive force] Nauka - neposred-
stvennaia proizvoditel'naia sila. Minsk, 1962. 29 p. (Ob-
shchestvo po rasprostraneniю politicheskikh i nauchnykh
znaniy Belorusskoi SSR, no.28) (MIRA 16:2)
(Communism and science)

KAPRANOVA, Ye.P., inzh.

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Jl '59. (MIRA 12:12)

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Experience with evaluation of the activities of enterprise transportation employees and their remuneration. Prace mzda 10 no.11:499-502 N '62.

1. Průmysl mléčné výživy, n.p., Nový Bydžov.